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In the claims:

1. (original) An optical system for use in measurements in a sample, the system comprising: (a) a light source operable to produce an incident light beam propagating in a certain direction towards the sample through an illumination channel; (b) a detector unit for collecting light coming from the sample through a detection channel, and generating data indicative of the collected light; (c) a light directing assembly operable to direct the incident beam onto a certain location on the sample's plane with a plurality of incident angles, and to direct light returned from the illuminated location to the detector unit, the light directing assembly comprising a plurality of beam deflector elements, at least one of the deflector elements being movable, a position of said at least one movable deflector element defining a selected one of the incident angles.

2. (original) The system according to claim 1, wherein the plurality of said deflector elements comprises two arrays of the deflector elements, one array being located in the illumination channel and the other array being located in the detection channel.

3. (original) The system according to claim 2, wherein each of the two arrays is formed by deflector elements arranged in a spaced-apart relationship along the respective channel.

4. (original) The system according to claim 3, wherein the deflector elements are mirrors having planar or parabolic-sector reflecting surface.

5. (original) The system according to claim 4, wherein each of the deflector elements has its associated focusing lens.

6. (original) The system according to claim 2, wherein each of the two arrays is formed by a reflecting surface of a parabolic-sector mirror.

7. (original) The system according to claim 6, wherein the light directing assembly comprises a planar mirrors located in the optical part of the incident beam propagating towards the array of the deflector elements in the illumination channel and movable along this optical path to thereby reflect the incident beam onto the selected one of the deflector elements of the illumination channel.

8. (original) The system according to claim 7, wherein the light directing assembly comprises a second planar mirror accommodated in the detection channel in the optical part of the returned deflected beam and movable along this channel, movement of the second mirror resulting in the detection of the returned beam deflected by the selected one of the deflector elements of the detection channel.

9. (original) The system according to claim 1, wherein the plurality of the deflector elements comprises a parabolic-sector mirror facing the sample by its reflecting surface, and comprises several planar mirrors operable together to direct the incident beam to the reflecting surface of the parabolic-sector mirror to be reflected thereby onto said location on the sample, and to direct the returned beam to the detector unit, at least one of the planar mirrors being movable between a plurality of operative positions, thereby directing the incident beam onto a selected location on the reflecting surface and enabling obtaining a selected one of the plurality of incident angles.

10. (amended) The system according to ~~any one of preceding~~ claims 1, wherein the detector unit comprises a spectroscopic detector.

11. (original) The system according to claim 10, wherein the detector unit comprises a pinhole accommodated upstream of the spectroscopic detector with respect to the direction of propagation of the returned beam towards the detector unit.

12. (original) The system according to claim 11, wherein the detector unit comprises an aperture stop accommodated upstream of the pinhole with respect to the direction of propagation of the returned beam towards the detector unit.

13. (amended) The system according to ~~any one of preceding~~ claims 1, wherein the light directing assembly comprises a polarizing assembly.

14. (original) The system according to claim 13, wherein the polarizing assembly comprises at least one polarizer located in the optical path of either the incident light beam produced by the light source, or the returned deflected beam propagating to the detector unit.

15. (amended) The system according to ~~any one of preceding~~ claims 1, wherein the light directing assembly defines an additional illumination/detection channel for directing the incident beam onto the sample along an axis perpendicular to the sample's plane and directing a reflection of the perpendicular incident beam to the detector.

16. (amended) The system according to claims 6 ~~and 9~~, wherein the light directing assembly defines an additional illumination/detection channel for directing the incident beam onto the sample along an axis perpendicular to the sample's plane and directing a reflection of the perpendicular incident beam to the detector, the additional illumination/detection channel being formed by a beam splitter spatially separating the perpendicular incident and reflected beams, and first and second planar mirrors, each being additionally shiftable between its operative and inoperative positions being, respectively, in and out of the optical path of the respective beam, such that when the first and second planar mirrors are in their operative positions, the incident and returned beams propagate through the illumination and the detection channels, respectively, and when the first and second planar mirrors are in their inoperative states, the incident and returned beams propagate through the additional illumination/detection channel.

17. (amended) The system according to claims 2 ~~and 9~~, wherein the light directing assembly defines an additional illumination/detection channel for directing the incident beam onto the sample along an axis perpendicular to the sample's plane and directing a reflection of the perpendicular incident beam to the detector, the additional illumination/detection channel being formed by a beam splitter spatially separating the perpendicular incident and reflected beams, and first and second planar mirrors, the first mirror being located in the optical part of the incident beam and being shiftable between its operative and inoperative positions being, respectively, in and out of the optical path of the incident beam, and the second planar mirror being accommodated in the optical part of the returned beam and being shiftable between its operative and inoperative positions being, respectively, in and out of the optical path of the returned beam, such that when the first and second planar mirrors are in their operative positions, the incident and returned beams propagate through the illumination and the detection channels, respectively, and when the first and second planar mirrors are in their inoperative states, the incident and returned beams propagate through the additional illumination/detection channel.

18. (amended) The system according to ~~any one of the preceding~~ claims 1, comprising an imaging channel defined by an imaging light source, an imaging detector unit and an imaging lens assembly.

19. (canceled) The system according to claim 18, wherein said imaging channel comprises an auto-focusing arrangement.

20. (original) An optical method for use in measuring in a sample, the method comprising: (i) providing an incident light beam propagating in a certain direction towards the sample along an illumination channel; (ii) directing the incident beam onto a certain location on the sample's plane with a plurality of incident angles, said directing comprising deflecting the incident beam by a selected one of a plurality of deflector resulting in the selected one of the angles of incidence of the beam onto said certain location; and (iii) detecting light returned from the illuminated location with a desired angle and generating data indicative thereof to be analyzed for determining at least one parameter of the sample.

21. The method according to claim 20, wherein said at least one parameter includes at least one of the following: R(X), wherein R is the reflectivity of the sample andX is the wavelength of incident light; R(6), wherein8 is the angle of incidence; R(/%,9) ; diffraction efficiency as a function of wavelength at zero order diffraction ; a changeA in phase of the returned beam from the incident beam; the amplitude ratioV of the incident and returned beams;A(X)and Y (X) for specularly reflected or zero order diffracted returned light.